

EPA's Work in the Bristol Bay Watershed

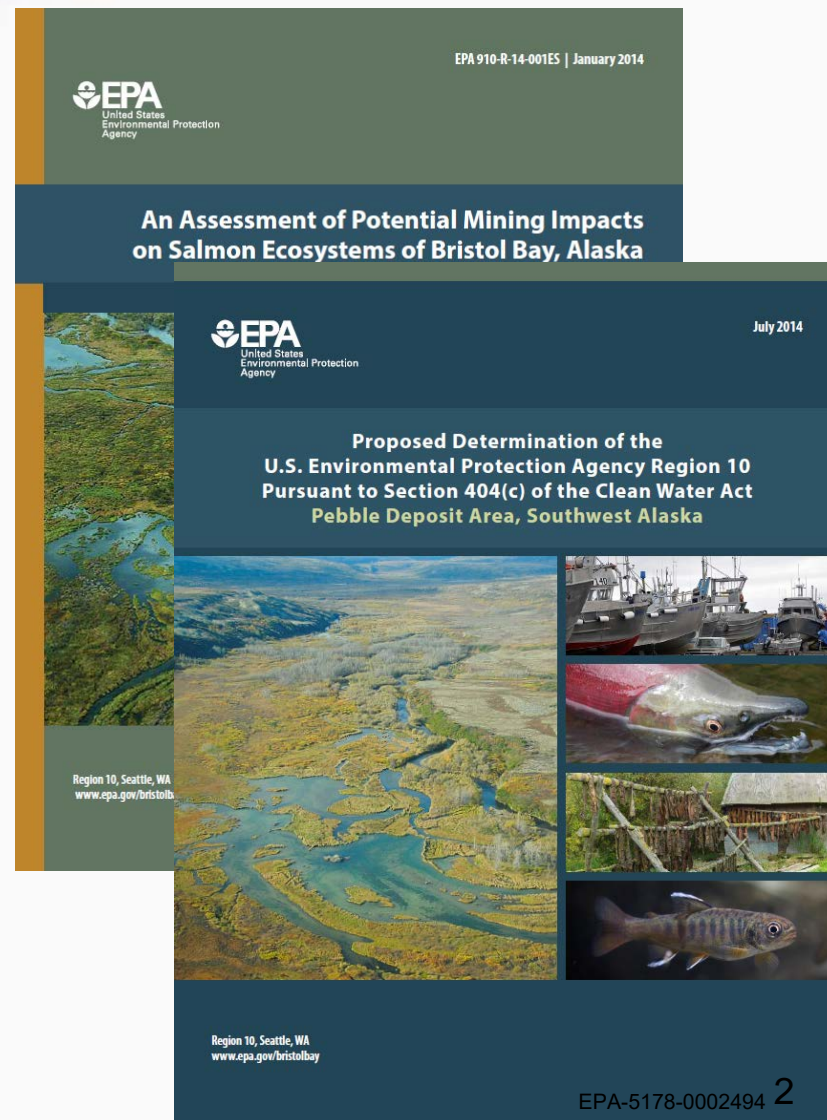
Presentation for Office of Federal Activities
January 31, 2018

Overview



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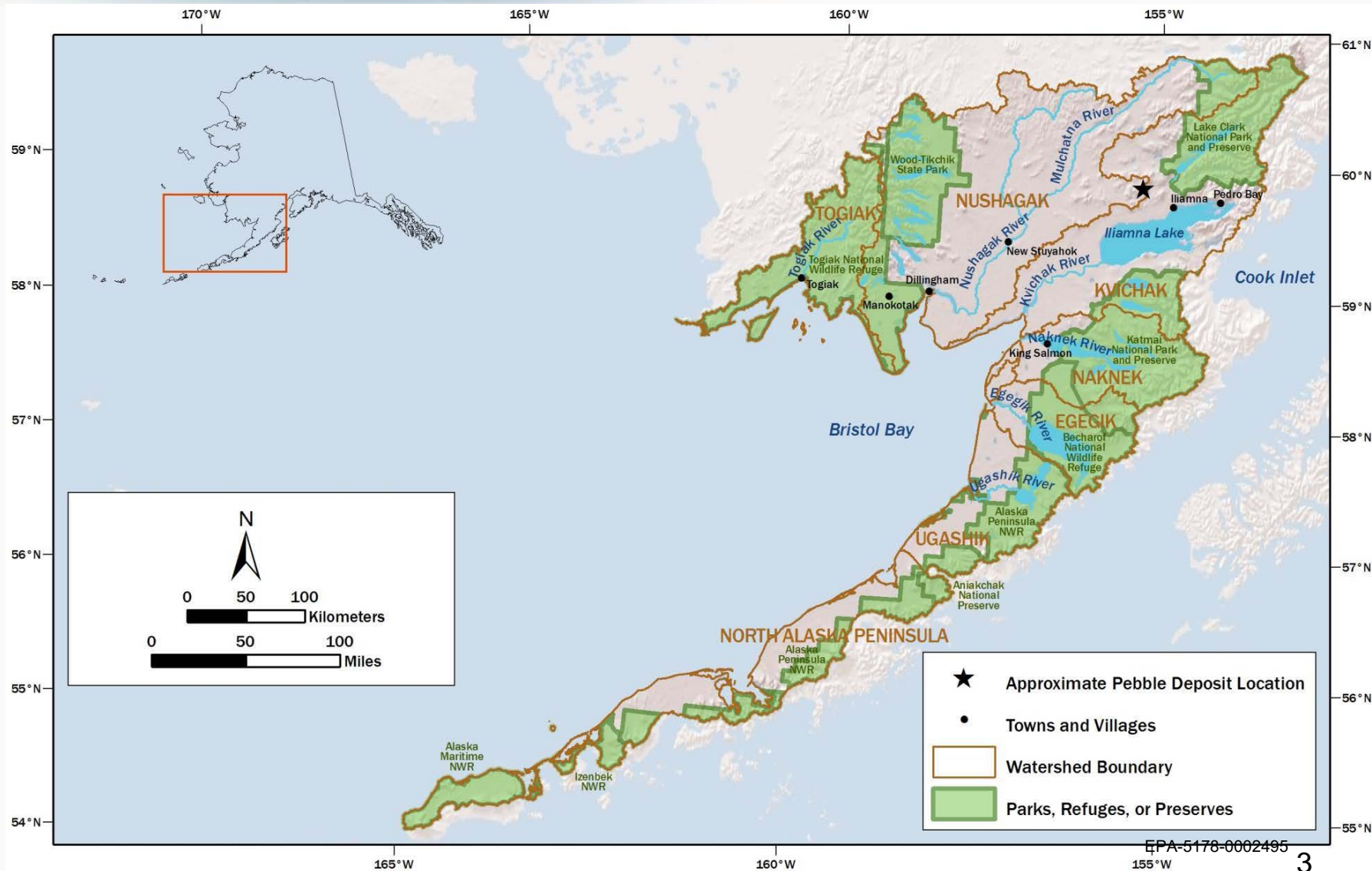
- EPA's Involvement History
- Science
- Section 404(c) Regulatory Response
- Section 404 Permitting and NEPA



Bristol Bay Watershed



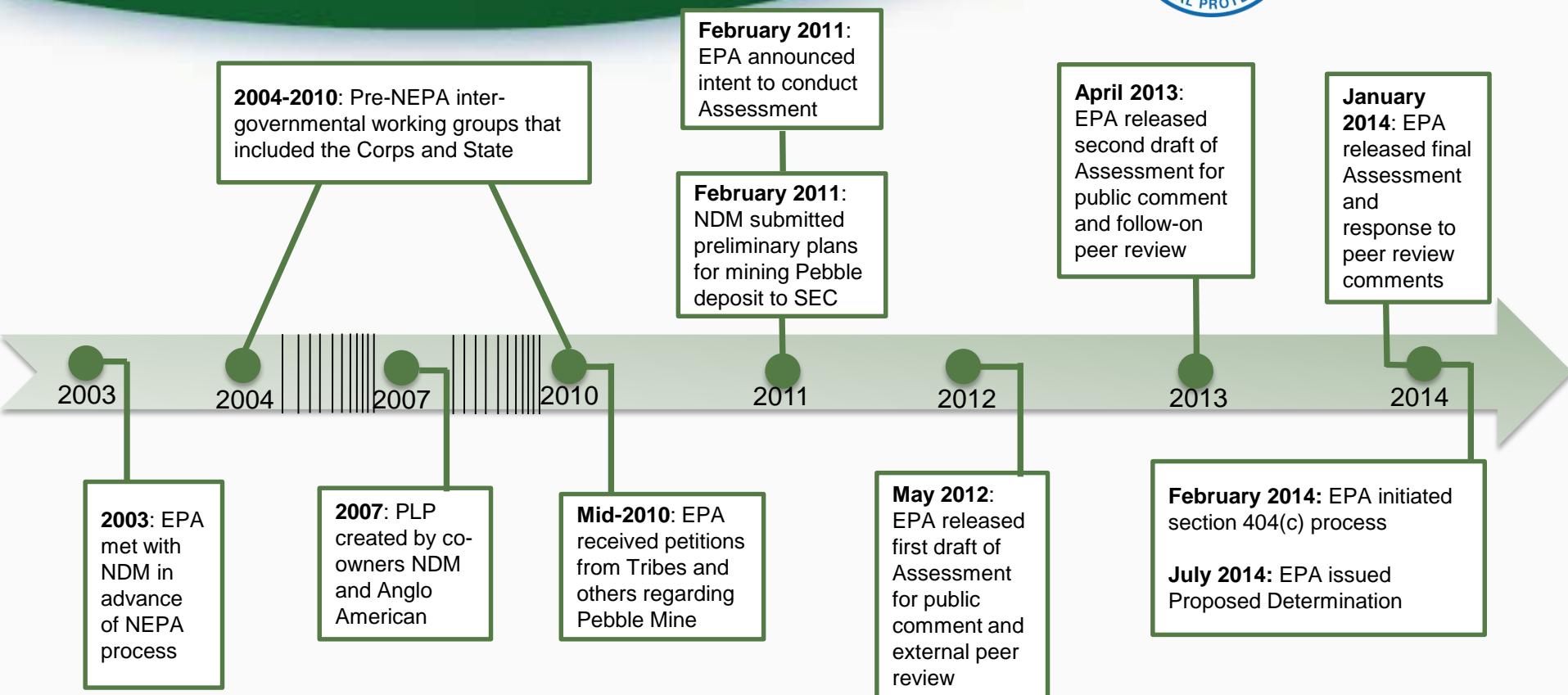
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Timeline 2003 - 2014



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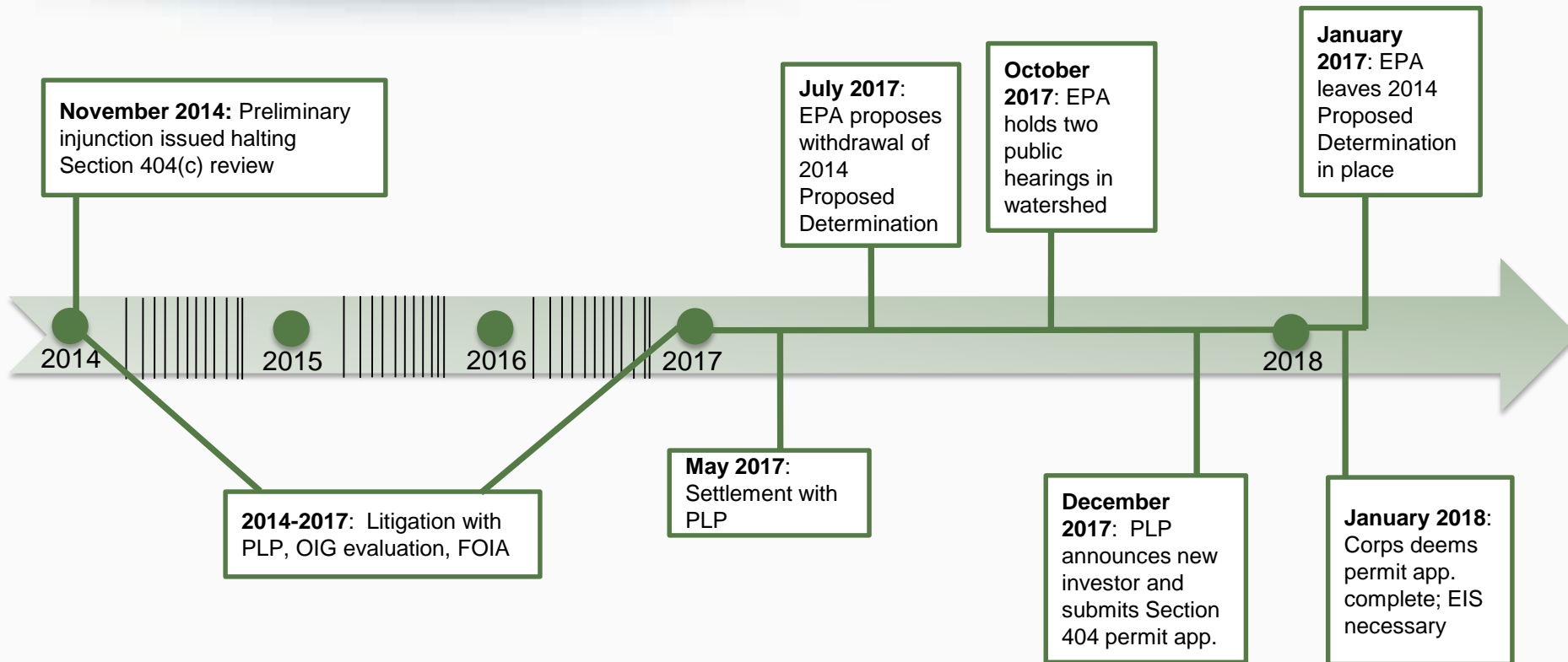


NDM = Northern Dynasty Minerals Ltd.
PLP = Pebble Limited Partnership
NEPA = National Environmental Policy Act
SEC = U.S. Securities and Exchange Commission

Timeline 2014 - Present



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OIG = EPA Office of Inspector General
PLP = Pebble Limited Partnership
Corps = U.S. Army Corps of Engineers
EIS = Environmental Impact Statement

Bristol Bay Watershed Assessment



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- Purpose:
 - Characterize the biological and mineral resources of the Bristol Bay watershed
 - Increase understanding of the potential impacts of large-scale mining on the region's fish resources
 - Inform future decision-making
- Scientific Ecological Risk Assessment evaluating potential impacts associated with:
 - Large-scale mine construction and operation
 - Accidents and failures
- Three-year scientific assessment effort
 - Independent external peer review
 - Stakeholder and public engagement
 - 8 public meetings
 - 2 rounds of public comment – over 1.1 million comments
 - Tribal consultations



Bristol Bay Watershed Resources



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Biological Resources:

- Bristol Bay produces almost half of world's sockeye salmon
- Kvichak watershed world's largest producer of sockeye salmon
- Nushagak watershed frequently at or near world's largest producer of Chinook salmon

Biological Resources Support:

- 14,000 jobs, generates \$480 million annually in direct economic expenditures and sales
 - Salmon fishery valued at \$1.5 billion annually
- 4,000-year-old subsistence fishery for Alaska Natives

Geological Resources:

- At least 10 claims with more than minimal exploration, including Pebble.
- Pebble deposit: low-grade, with copper, gold, and molybdenum
- According to NDM, Pebble could:
 - Be largest mine of its type in North America
 - Produce 3,000 jobs in AK
 - Contribute \$2.7 billion to US GDP annually
- Economics of mining the Pebble deposit are speculative
- Since 2001, four major mining companies have walked away from Pebble project

EPA-5178-0002499

Bristol Bay Watershed Assessment



- Mining scenarios informed by NDM plans submitted to U.S. Securities and Exchange Commission (SEC) in 2011
- Uses 3 potential stages of mine development at Pebble deposit
 - 0.25-billion-ton mine (worldwide median size porphyry copper deposit)
 - 2.0-billion-ton mine (smallest mine size proposed by NDM to SEC)
 - 6.5-billion-ton mine (largest mine size proposed by NDM to SEC)
- NDM says deposit is nearly 12 billion tons

Bristol Bay Watershed Assessment



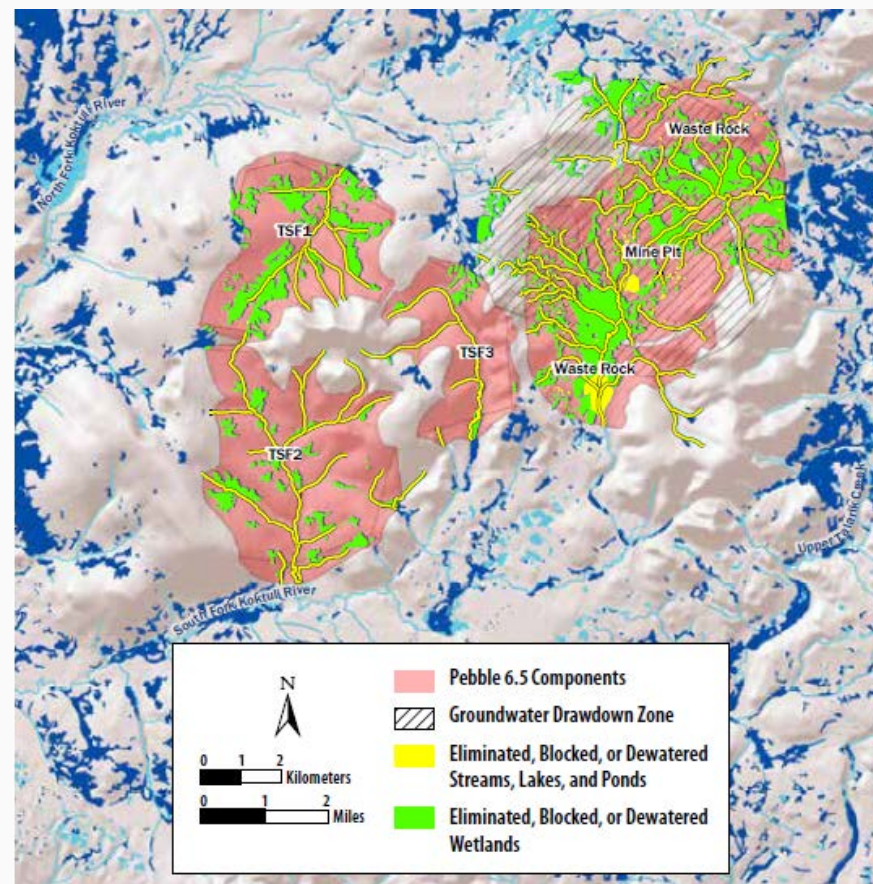
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Mine Footprint Impacts:

- 24-94 miles of salmon-supporting streams destroyed
- 1,300-5,350 acres of wetlands, ponds, lakes destroyed
- 9-33 miles of salmon-supporting streams with altered streamflow likely to affect ecosystem structure and function

Other Impacts:

- Tailings dams need maintenance in perpetuity
- Routine operations and accidents would increase impacts on salmon habitat quality, both at the mining site and along the 86-mile transportation corridor.



Clean Water Act Section 404



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- § 404(a) authorizes the Secretary of the Army to issue **permits**
 - For the discharge of dredged or fill material into waters of the U.S. at specified disposal sites
- § 404(b) directs the Secretary of the Army to apply **environmental criteria** developed by EPA when specifying disposal sites
 - § 404(b)(1) Guidelines [40 CFR Part 230]
- § 404(c) authorizes EPA to prohibit, deny or restrict (withdraw) the placement of dredged or fill material at defined sites in waters of the U.S.

Limits of Section 404(c)



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- **Whenever** it determines, after notice and opportunity for public hearing, that the discharge of such materials into such area will have an **unacceptable adverse effect(s)** on:
 - Municipal water supplies; or
 - Shellfish beds and **fishery areas**; or
 - Wildlife; or
 - Recreation areas.



EPA-3176-0002505

Pebble Deposit 404(c) Process



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Step 1

- 2/28/14: **Initiation by EPA Region 10** – “15-day letter”
- Consulted with Corps, NDM/PLP, and State

Step 2

- 7/18/14: **Proposed Determination** released (PD) by EPA Region 10
- 8/12-15/14: 7 public hearings in Alaska
- > 670,000 written comments; > 99% (86% unique) supported Proposed Determination

Step 3

- EPA Region 10 will review the public comments
- EPA Region 10 will withdraw PD or prepare **Recommended Determination** (RD)

Step 4

- **Final Determination (FD) by EPA Assistant Administrator for Water**
- Consult again with Corps, NDM/PLP, and State
- Within 60 days of receipt of RD, issue FD affirming, modifying, or rescinding RD

What Are the Proposed Restrictions?



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Restrict the discharge of dredged or fill material related to mining the Pebble deposit into waters of the U.S. that would, individually or collectively, result in the following:

1. Loss of Streams.

- a. The loss of 5 or more linear miles of streams with documented anadromous fish occurrence; **or**
- b. The loss of 19 or more linear miles of streams where anadromous fish are not currently documented, but that are tributaries of streams with documented anadromous fish occurrence; **or**

2. Loss of Wetlands, Lakes, and Ponds. The loss of 1,100 or more acres of wetlands, lakes, and ponds contiguous with either streams with documented anadromous fish occurrence or tributaries of those streams; **or**

3. Streamflow Alterations. Streamflow alterations greater than 20% of daily flow in 9 or more linear miles of streams with documented anadromous fish occurrence

Response to Section 404(c) Proceeding



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- Office of Inspector General (OIG) Review
 - 17-month in-depth evaluation found no evidence of bias or a pre-determined outcome
 - Possible misuse of position for retired Region 10 employee noted
- PLP broad Freedom of Information Act (FOIA) requests
 - Approximately 18,000 documents produced
- PLP filed three lawsuits in 2014
 - Administrative Procedure Act (APA) challenge to initiation of 404(c) process
 - FOIA litigation
 - Federal Advisory Committee Act (FACA) litigation
- May 2017 settlement agreement
 - Resolved FOIA and FACA litigation and PLP's outstanding FOIA requests

Settlement Agreement



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- Key terms of the May 11, 2017 settlement agreement between PLP and EPA:
 - EPA may use its Bristol Bay Watershed Assessment without limitation
 - EPA agrees to initiate a process to propose to withdraw its 2014 Proposed Determination by July 11, 2017
 - EPA agrees not to forward a Recommended Determination (the next step in the 404(c) review process) to EPA HQ until a Final EIS is noticed for the project or May 11, 2021, whichever is earlier
 - PLP drops remaining lawsuits and fee requests against EPA and agrees to file no new FOIA requests during the 2.5- to 4-year hiatus period

Proposal to Withdraw 2014 Proposed Determination



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- July 2017: Withdrawal proposed based on policy rationale
 - EPA did not solicit comment on the proposed restrictions or on science or technical information underlying the Proposed Determination
- Outreach and Consultation
 - Proposal generated >1 million comments (~99% opposed)
 - 2 public hearings in watershed
 - Tribal and ANCSA Consultation
 - 16 tribal governments and 1 ANCSA Regional Corp. opposed
 - 1 tribal government and 2 ANCSA Village Corps. supported



Section 404(c) Next Steps



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- EPA decided not to withdraw and suspended Section 404(c) process pending further review
- Settlement agreement obligations
 - EPA can issue a new/modified Proposed Determination at any time
 - EPA Region 10 cannot forward a Recommended Determination to EPA HQ until May of 2021 or until a final EIS is noticed, whichever comes first



2017 DA Permit Application



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- PLP filed Department of Army (DA) permit application in December 2017 to the Corps
- DA Application includes CWA 404 and RHA Section 10
- Corps deemed application sufficient to begin NEPA
- DA permit application includes Project Description: mine, power supply, transportation



Pebble deposit area

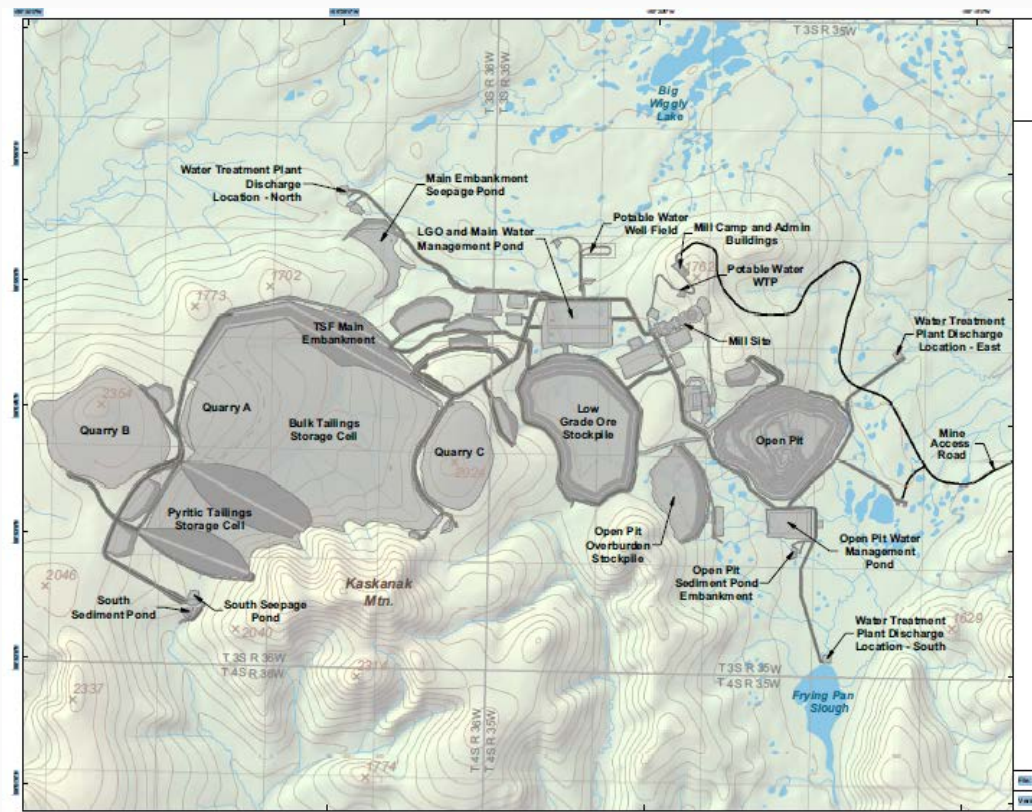
DA Application Project Description



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Mine Site

- 1.1 billion tons of ore mined over 20 years
- 160,000 tons/day of ore processed to produce:
 - Copper concentrate
 - Molybdenum concentrate
 - Gold via gravity separation
- Open pit mine, ore storage pile, 2 tailings impoundments
- 2 water treatment plants and 3 discharge outfalls
- Closure
 - PAG waste rock backfilled into open pit
 - Dry closure of tailings
 - Long-term water treatment



DA Application Project Description

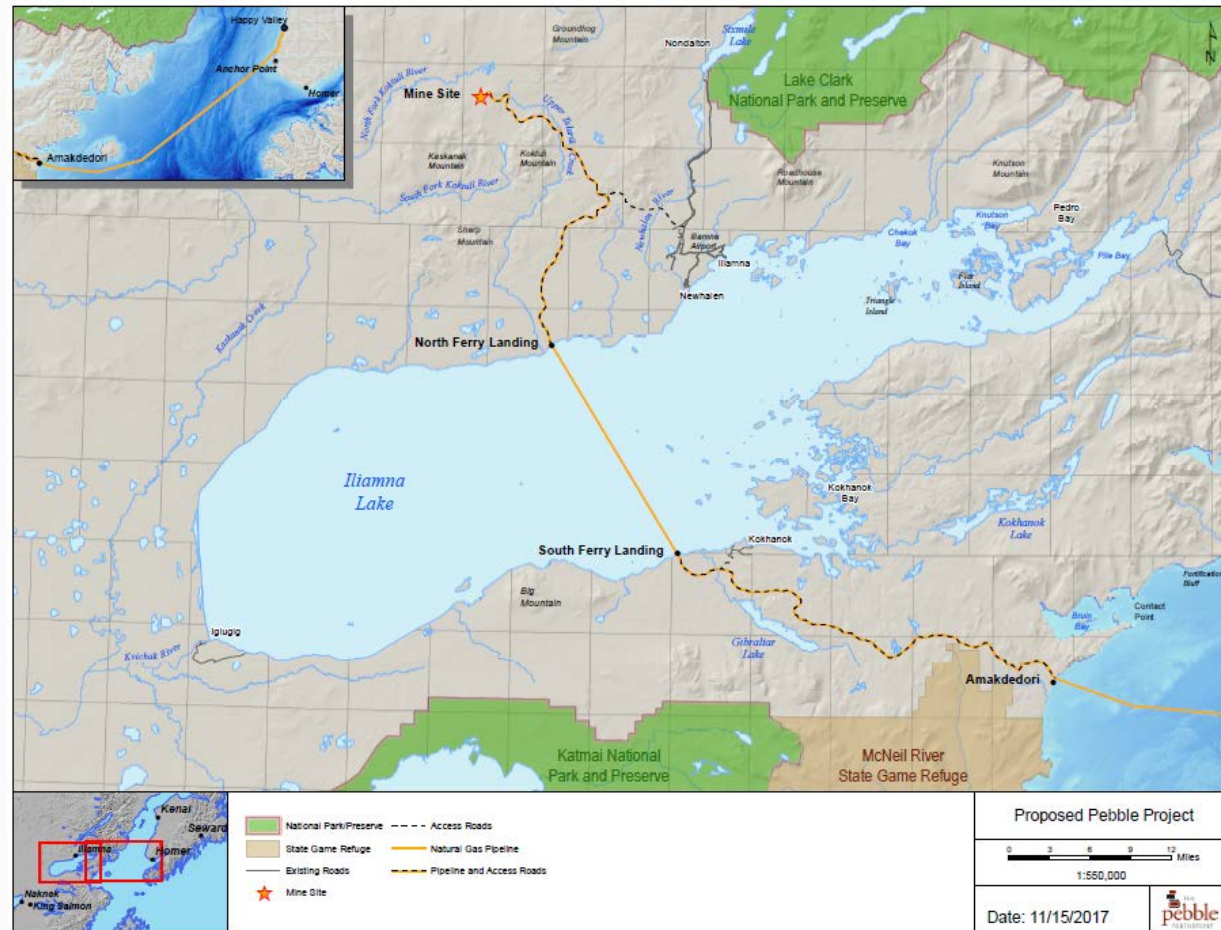


Power

- 230 MW power plant at mine site
- 188 mile natural gas pipeline

Transportation

- 65 miles of roads
- Ferry across Lake Iliamna
- Cook Inlet port site



DA Application Project Description



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- Project description represents a mine that is:
 - smaller than included in Northern Dynasty's 2011 Preliminary Assessment
 - larger than the BBWA 0.25 billion ton mine scenario basis for the 2014 Proposed Determination

2014 Proposed Determinations
Loss of 5 or more miles of streams with anadromous fish; or
Loss of 19 or more miles of streams that are tributaries of anadromous fish streams; or
Loss of 1100 or more acres of wetlands, lakes and ponds contiguous with streams or tributaries to streams that have anadromous fish; or
Stream flow alteration > 20% of daily flow in 9 or more miles of streams with anadromous fish

2017 DA Application	
component	wetlands filled
Mine site	3190
Transportation (roads, ferry terminals, port)	480
Pipeline	408
TOTAL	4078

- Project description includes aspects different than the PA and BBWA mine scenarios
 - Less waste rock mined
 - No cyanide leaching
 - Liners (pyritic tailings and low grade ore stockpile)
 - Advanced water treatment and "Physical Habitat Simulation System" to mitigate dewatering
 - Compensatory mitigation - TBD
- Project description could evolve during EIS and 404 review



Initial Corps Process

- Corps issued January 5, 2018 Public Notice of application- informational, no comments requested
- Corps invited EPA to be EIS cooperating agency
 - Currently proposing to limit EPA's involvement to Section 404(b)(1) issues
 - Framework for coordination is atypical
 - EPA requested higher-level meeting to discuss
- Corps proposed schedule
 - Notice of Intent/EIS scoping in spring 2018
 - Final EIS by end of 2020
 - DA Application (CWA 404) public notice with Draft or Final EIS
 - FAST-41 considerations

Potential NEPA Cooperating Agencies



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- Federal
 - DOT Pipeline and Hazardous Materials Safety Administration (TBD)
 - US Coast Guard
 - DOI Bureau of Safety and Environmental Enforcement
 - US Fish and Wildlife Service
 - National Marine Fisheries Service
 - EPA
- State
 - Alaska Department of Natural Resources Office of Project Management and Permitting coordinates state agencies (ADNR, ADEC, ADFG, SHPO)
- Local Governments
 - Lake & Peninsula Borough & Kenai Peninsula Borough
- Tribes
 - Corps sent consultation letters to 35 tribal governments
 - Corps has not yet solicited tribes interest in participating as cooperating agency



- EPA has developed a cross-programmatic, multi-disciplined team to respond
- EPA Role
 - NEPA
 - Potentially a cooperating agency
 - CAA 309 review of the Draft EIS
 - Clean Water Act
 - CWA 404 permit application & 404(b)(1) review
 - Oversight of State CWA 402 Alaska Pollutant Discharge Elimination System Permit
 - Clean Air Act
 - Oversight of State Air Quality Permit
- Next Steps
 - Resolve cooperating agency status
 - EIS scoping

Questions



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Upper Talarik Creek, one of three streams flowing from the Pebble deposit site

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